

REMARKS

Claims 1-32 are pending in the present Application. No claims have been canceled, amended, or added, leaving Claims 1-32 for consideration upon entry of the present Response. Reconsideration and allowance of the claims are respectfully requested in view of the following remarks.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1 and 4 - 6 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Rosato's Injection Molding Handbook (3rd ed.; hereinafter the "Rosato"). Specifically, the Examiner alleged that Rosato shows that it is known to carry out a method of molding an article, comprising injection molding a polymeric material at a melt temperature of about 330 to 370°C (Table 4-8), into a mold having a mold temperature of about 90 to about 130°C (Table 4-8) and a clamp tonnage of about 12 to about 35 tons to form the article (Page 77-78, Kurto/John Manufacturer) (Office Action dated 3/7/2006, page 2). Applicants respectfully traverse this rejection.

As a handbook on injection molding, Rosato discloses general considerations for injection molding in very broad terms. Rosato also discloses specific examples such as thermoplastic injection temperatures and clamp tonnages. For instance, Table 4-8 of Rosato discloses average melt temperatures and corresponding mold temperatures for about 30 thermoplastic materials. Table 2-3 on Page 77-78 discloses a variety of clamp tonnage ranges corresponding to types of instrument, manufactures of the instrument, and types of clamps being used.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness, i.e., that all elements of the invention are disclosed in the prior art; and that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496

(C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

Rosato fails to teach or suggest the unique combination of the particular melt temperature, mold temperature, and clamp tonnage of the instant Claim 1. Instant Claim 1 is directed to a method of molding a disk, comprising injection molding a polymeric material at a melt temperature of about 330 to about 370°C into a mold having a mold temperature of about 90 to about 130°C and a clamp tonnage of about 12 to about 35 tons. Rosato does disclose specific examples of melt temperatures and corresponding mold temperatures. However, it fails to disclose the particular combination of the melt and mold temperatures of the instant claim. The Examiner cited molding parameters for PEEK thermoplastic in Table 4-8 of Rosato as rendering the instant claim obvious (Office Action dated 3/7/2006, page 2). The disclosed melt temperature for PEEK is 334°C and the corresponding mold temperature is 160°C for unreinforced and 180°C for glass-fiber-reinforced material. Thus, this example fails to disclose the mold temperature of about 90 to about 130°C of the instant claim.

The Examiner alleged that 160°C meets the requirement of “about 130°C” of the instant claim (Office Action dated 3/7/2006, page 2). Applicants respectfully disagree. The language of “about” in the instant claim (e.g., “about 130°C”) is used to accommodate the inherent slight variability of mold temperatures during the injection molding process. Although a mold temperature difference by a few degrees might not necessarily change the molding parameters in some cases, a difference by about 30°C between PEEK (160°C) and the instant Claim 1 (about 130°C) would most likely be considered as different molding parameters by one skilled in the art and may likely result in significant differences in properties of the molded plastics. In fact, the very example of PEEK in Table 4-8 indicates that a difference of about 20°C in mold temperatures has significance in terms of molding parameters. Specifically, the mold temperatures for different materials, unreinforced and glass-fiber-reinforced materials, are 160°C and 180°C, respectively, a difference of about 20°C. Thus, Rosato fails to teach the particular combination of the melt and the mold temperatures of the instant claim.

Moreover, Rosato further fails to suggest or motivate a skilled artisan to modify the teachings of Rosato by using a mold temperature that is significantly less than the disclosed 160°C for PEEK with a particular clamp tonnage chosen out of the over sixty manufacturers of injection molding machines illustrating claim tonnage ranges found in Table 2-3. Table 2-3 of Rosato generally discloses a variety of clamp tonnage ranges corresponding to types of instrument, manufactures of the instrument, and types of clamps being used. But it does not provide any guidance on how to choose a certain clamp tonnage to be combined with certain melt and mold temperatures. The Examiner alleged that it would have been obvious to choose the particular clamp tonnage of the instant claim “as part of routine experimentation in order to fine tune a molding process” and cited MPEP 2144.05(II)(B) to support that position (Office Action dated 3/7/2006, hangover paragraph from page 2). Applicants respectfully disagree.

The clamp tonnage of the instant claim cannot be determined or optimized from Table 2-3 of Rosato through mere routine experimentation. According to MPEP 2144.05(II)(B), “[a] particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation.” *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977). Table 2-3 does disclose examples of past and present injection molding clamping forces. However, it does not teach any recognized result. The instant Claim 1 requires a clamp tonnage of about 12 to about 35 tons to form a disk of the desired quality. But Table 2-3 does not recognize that clamp tonnage is a function of the quality of a molded disk. In fact, this table is not specifically directed to parameters for molding a disk. As this table does not recognize clamp tonnage to be a result-effective variable for molding a disk of the desired quality of the instant claim, this parameter cannot be optimized through routine experimentation to arrive at the particular clamp tonnage of the instant claim.

Moreover, even assuming *arguendo* that clamp tonnage were recognized by Table 2-3 of Rosato as a result-effective variable, the particular narrow range of clamp tonnage (12 to 35 tons) of the instant Claim 1 still could not be optimized from the exceedingly broad range

of 0 to 7,000 tons disclosed by Table 2-3 through routine experimentation. Not only the range of tonnage is broad, the number of ranges disclosed by this table is also very large (well over 100 ranges are disclosed). Given the fact that Table 2-3 does not provide any guidance on how to choose a particular clamp tonnage with particular melt and mold temperatures, a skilled artisan would not be able to arrive at the particular combination of the particular clamp tonnage of about 12 to about 35 tons with the specific melt temperature of about 330°C to about 370°C and the specific mold temperature of about 90°C to about 130°C of the instant Claim 1 through routine experimentation.

As Rosato provides no suggestion or motivation for one of ordinary skill in the art to arrive at the particular method of instant Claim 1, this claim and its dependent Claims 4-6 have not been rendered obvious. Therefore, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. §103(a) rejections over Claims 1 and 4-6.

Claims 2, 3, 15, 16, 18-21, 24, 31, and 32 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Rosato, in view of Japanese Patent No. JP 10-306268 to Toshihiko, et al (hereinafter the “Toshihiko”). Applicants respectfully traverse this rejection.

Toshihiko is directed to an adhesive composition used in recording media and generally discloses a method of producing an information record medium such as by injection molding. However, this reference does not disclose molding parameters, such as melt temperature, mold temperature, and clamp tonnage, at all.

Regarding independent Claim 1, Rosato fails to teach or suggest the particular combination of the melt temperature, mold temperature, and clamp tonnage of the instant claim for the reasons presented above. Toshihiko does not cure this deficiency as this reference fails to even teach these molding parameters, let alone the unique combination of these parameters. Thus instant Claim 1 and dependent Claims 2, 3, 15, and 16 would not have been obvious over Rosato in view of Toshihiko.

Regarding independent Claim 18, Rosato and Toshihiko have not rendered the instant claim obvious as the references fail to teach or suggest all of the limitations of the claims. Claim 18 is directed to a multi-step method of molding disks including injection molding a

polymeric material to form disks according to a molding model, testing disk assemblies for radial tilt change, creating an updated molding model, and repeating the molding, testing and creating steps to form final disks and a final molding model.

Rosato only generally discloses molding parameters. But it fails to provide the requisite teaching or suggestion to injection mold according to a molding model comprising certain parameters, testing the resulting disks, updating the molding model, and repeating until the molding parameters of the resulting molding model results in the fabrication of disk assemblies exhibiting a radial tilt change value after aging of less than or equal to about 0.35 degree measured at a radius of 55 millimeters. Toshihiko also fails to teach any melt temperature, mold temperature, and clamp tonnage, let alone a multi-step method of molding disks according to a molding model.

The Examiner alleged in Response to Argument that Toshihiko's "repeated research" would include multi-step processes and thus would have rendered instant Claim 18 obvious (Office Action dated 3/7/2006, pages 15-16). Applicants respectfully disagree as "repeated research" would not provide suggestion or motivation for a skilled artisan to arrive at the multi-step method of the instant claim 18.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Establishing a prima facie case of obviousness requires that all elements of the invention be disclosed in the prior art. *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970).

Applicants respectfully maintain that the Examiner has used an improper standard in arriving at the rejection of the above claims under section 103, based on improper hindsight, which fails to consider the totality of applicant's invention and to the totality of Toshihiko. Toshihiko simply fails to disclose all elements of the instant Claim 18. This reference is directed to an adhesive composition used in recording media and a method of producing an information record medium such as by injection molding. The "repeated research" used in Toshihiko (paragraph [0008]) appears to refer to a research process of producing an information record medium having desired properties such as resistance to moisture and heat.

However, it is not clear from Toshihiko what “research” needs to be done to achieve this object. Moreover, as Toshihiko fails to disclose any molding model or how to test disk assemblies for radial tilt change, this reference provides no suggestion or motivated for a skilled artisan to arrive at the particular method as required in Claim 18 comprising injection mold according to a molding model comprising certain parameters, testing the resulting disks, updating the molding model, and repeating until the molding parameters of the resulting molding model results in the fabrication of disk assemblies exhibiting a radial tilt change value after aging of less than or equal to about 0.35 degree measured at a radius of 55 millimeters.

As Rosato or Toshihiko, either taken alone or combined, fails to teach or suggest all elements of independent Claim 18, this claim and its dependent Claims 19-21, 24, 31 and 32 have not been rendered obvious.

Therefore, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejections against Claim 18 and its dependent Claims 19-21, 24, 31 and 32.

Claims 7 and 8 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Rosato, in view of U.S. Patent No. 6,221,536 to Dhar, et al (hereinafter the “Dhar”). Applicants respectfully traverse this rejection.

Both Claims 7 and 8 depend from Claim 1 and further define the disk as having a certain percent feature replication. As mentioned in the Specification of the instant application at paragraph [0017], the percent feature replication is based on a comparison of the measurements of the mold stamper features with the measurements of the matching features of the disk that is molded.

Dhar generally discloses a material containing a polymerizable monomer or oligomer, where the material exhibits shrinkage compensation upon polymerization. The material is used to make recording media. Dhar does not disclose molding parameters, such as melt temperature, mold temperature, and clamp tonnage.

For reasons presented above, Claim 1 is not obvious over Rosato as Rosato fails to suggest or motivate a skilled artisan to modify the teachings therein to arrive at the particular

combination of the melt temperature, the mold temperature and the clamp tonnage as required in Claim 1. Dhar fails to cure the deficiency of Rosato as Dhar does not even disclose melt temperature, mold temperature, and clamp tonnage, let alone molding disks using the particular molding parameters of the instant Claim 1.

The Examiner alleged that Dhar was not cited to show molding disks but rather to show a specific replication element (Office Action dated 3/7/2006, page 16). However, as discussed above, Claim 1 is not obvious over Rosato. In order to render Claim 1 obvious, Dhar, in combination with Rosato, must provide suggestion or motivation for a skilled artisan to arrive at the particular combination of the melt temperature, the mold temperature, and the clamp tonnage of the instant claim. Dhar fails to cure the deficiency of Rosato as Dhar fails to even disclose molding parameters and thus Rosato or Dhar, either alone or in combination, does not provide the necessary suggestion or motivation. Applicants respectfully point out that whether or not Dhar shows a specific replication element of Claims 7 and 8 does not provide the missing teaching or suggestion to modify Rosato that would render even independent Claim 1 obvious, a claim from which Claims 7 and 8 depend. Therefore, dependent Claims 7 and 8 are also not obvious over these same references.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejections regarding Claims 7 and 8.

Claims 9, 10, and 14 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Rosato, in view of U.S. Publication No. 2002/0137840 to Adedeji, et al (hereinafter the “Adedeji”). Applicants respectfully traverse this rejection.

Claims 9, 10, and 14 all ultimately depend from Claim 1 and further define the polymeric material used to mold a disk.

Adedeji generally discloses a thermoplastic composition including specified amounts of a poly(arylene ether), a homopolymer of an alkenyl aromatic monomer, a polyolefin, a hydrogenated block copolymer, and an unhydrogenated block copolymer, but the composition is substantially free of any rubber-modified poly(alkenyl aromatic) resin.

For reasons presented above, Claim 1 is not obvious over Rosato as Rosato fails to suggest or motivate a skilled artisan to modify the teachings therein to arrive at the particular combination of the melt temperature, the mold temperature and the clamp tonnage as required in Claim 1. Adedeji fails to cure the deficiency of Rosato as Adedeji does not provide the missing teaching, suggestion, or motivation. In fact, Adedeji does not even disclose molding parameters, such as melt temperature, mold temperature, and clamp tonnage for molding disks using the particular molding parameters of the instant claim. Since Adedeji in combination with Rosato fail to suggest or motivate a skilled artisan to modify the teachings therein to result in the particular combination of the melt temperature, the mold temperature and the clamp tonnage as required in Claim 1, Claim 1 and its dependent Claims 9, 10, and 14 have not been rendered obvious over Rosato in view of Adedeji.

The Examiner alleged that Adedeji was not cited to show molding disks (Office Action dated 3/7/2006, page 16). However, as discussed above, Claim 1 is not obvious over Rosato. In order to render Claim 1 obvious, Adedeji, in combination with Rosato, must provide suggestion or motivation for a skilled artisan to arrive at the particular combination of the melt temperature, the mold temperature, and the clamp tonnage of the instant claim. Rosato or Adedeji, either alone or in combination, does not provide the necessary suggestion or motivation as Adedeji does not even disclose melt temperature, mold temperature, and clamp tonnage for molding a disk. Therefore, dependent Claims 9, 10, and 14 are also not obvious over these same references.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejections regarding Claims 9, 10, and 14.

Claim 11 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Rosato and U.S. Patent No. 6,407,200 to Singh, et al. (hereinafter the “Singh”), further in view of U.S. Patent No. 6,306,953 to Fortuyn, et al. (hereinafter the “Fortuyn”). Applicants respectfully traverse this rejection.

Singh is generally directed to a method of preparing a poly(arylene ether) including oxidatively polymerizing a monohydric phenol in solution, concentrating the solution by removing a portion of the solvent to form a concentrated solution having a cloud point, T_{cloud} , and combining the concentrated solution with an anti-solvent to precipitate the poly(arylene ether), wherein the concentrated solution has a temperature of at least about $(T_{\text{cloud}} - 10^{\circ}\text{C})$ immediately before it is combined with the anti-solvent. Singh does not teach injection molding parameters.

Fortuyn is generally directed to reduced emissions of styrene and butanal by thermoplastic compositions comprising poly(arylene ether), a polystyrene resin, optionally rubber, and an activated carbon derived from vegetable matter.

Claim 11 ultimately depends from Claim 1. As presented above, Claim 1 is not obvious over Rosato. Neither Singh nor Fortuyn cure the deficiency of Rosato as these references do not provide the missing teaching, suggestion, or motivation. Accordingly, as the combination of Rosato, Singh, and Fortuyn fail to suggest or motivate a skilled artisan to modify the teachings therein to result in the particular combination of the melt temperature, the mold temperature and the clamp tonnage as required in Claim 1, Claim 1 and its dependent Claim 11 has not been rendered obvious.

The Examiner alleged that Fortuyn was not cited to show molding disks or clamp tonnage (Office Action dated 3/7/2006, page 16). However, as discussed above, Claim 1 is not obvious over Rosato and Singh. In order to render Claim 1 obvious, Fortuyn, in combination with Rosato and Singh, must provide suggestion or motivation for a skilled artisan to modify the teachings of the references to arrive at the particular combination of the melt temperature, the mold temperature, and the clamp tonnage of the instant claim. Rosato, Singh, or Fortuyn, either alone or in combination, does not provide the necessary suggestion or motivation as Fortuyn does not even disclose clamp tonnage. Therefore, dependent Claim 11 is also not obvious over these same references.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejections regarding Claim 11.

Claim 12 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Rosato and Singh, further in view of U.S. Patent No. 4,727,093 to Allen, et al. (hereinafter the “Allen”). Applicants respectfully traverse this rejection.

Allen generally discloses low density particles or beads of polyphenylene ether or polyphenylene ether-polystyrene blends provided by incorporation of a suitable blowing agent such as pentane into the resin mixture, flowed by expansion of the resin particles by exposure temperatures near the Tg of the blend. Allen does not teach injection molding parameters.

Claim 12 ultimately depends from Claim 1. As presented above, Claim 1 is not obvious over Rosato in view Singh. Allen also fails to cure the deficiency of Rosato and Singh as this reference does not provide the missing teaching, suggestion, or motivation. Accordingly, as the combination of Rosato, Singh, and Allen fail to suggest or motivate a skilled artisan to modify the teachings therein to result in the particular combination of the melt temperature, the mold temperature and the clamp tonnage as required in Claim 1, dependent Claim 12 has not been rendered obvious.

The Examiner alleged that Allen was not cited to show molding disks or clamp tonnage (Office Action dated 3/7/2006, page 16). However, as discussed above, Claim 1 is not obvious over Rosato and Singh. In order to render Claim 1 obvious, Allen, in combination with Rosato and Singh, must provide suggestion or motivation for a skilled artisan to modify the teachings of the references to arrive at the particular combination of the melt temperature, the mold temperature, and the clamp tonnage of the instant claim. Rosato, Singh, or Allen, either alone or in combination, does not provide the necessary suggestion or motivation as Allen does not even disclose melt temperature, mold temperature, and clamp tonnage, let alone the particular combination of these molding parameters of the instant Claim 1. Therefore, dependent Claim 12 is also not obvious over these same references.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejections regarding Claim 12.

Claim 13 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Rosato and Singh, further in view of U.S. Patent No. 5,872,201 to Cheung, et al (hereinafter the “Cheung”). Applicants respectfully traverse this rejection.

Cheung generally discloses substantially random interpolymers comprising (1) ethylene, (2) one or more aromatic vinylidene monomers or hindered aliphatic or cycloaliphatic vinylidene monomers, and (3) one or more olefinic monomers having from 3 to about 20 carbon atoms. Cheung does not disclose specific injection molding parameters.

Claim 13 ultimately depends from Claim 1. As presented above, Claim 1 is not obvious over Rosato in view Singh. Cheung also fails to provide the missing teaching or suggestion to modify the teachings of the references to achieve the particular molding parameters as required by Claim 1. Accordingly, as the combination of Rosato, Singh, and Cheung fail to teach or suggest all of the limitations required by Claim 1, dependent Claim 13 has not been rendered obvious.

The Examiner has stated that Cheung was not cited to show molding disks or specific molding parameters (Office Action dated 3/7/2006, page 16). However, as discussed above, Claim 1 is not obvious over Rosato and Singh. In order to render Claim 1 obvious, Cheung, in combination with Rosato and Singh, must provide suggestion or motivation for a skilled artisan to modify the teachings of the references to arrive at the particular combination of the melt temperature, the mold temperature, and the clamp tonnage of the instant claim. Rosato, Singh, or Cheung, either alone or in combination, does not provide the necessary suggestion or motivation as Cheung does not even disclose melt temperature, mold temperature, and clamp tonnage, let alone the particular combination of these molding parameters of the instant Claim 1. Therefore, dependent Claim 13 is also not obvious over these same references.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejections regarding Claim 13.

Claim 17 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Rosato, in view of U.S. Patent No. 5,286,812 to Karasz, et al. (hereinafter the “Karasz”).

Applicants respectfully traverse this rejection.

Karasz generally discloses thermoplastic compositions of an aromatic polyimide and an aromatic polyethersulfone. Blends of poly(2,6-dimethyl-1,4-phenylene oxide) is briefly disclosed as a miscible blend. Karasz does not disclose specific injection molding parameters.

Claim 17 is directed to a method of molding a disk, comprising injection molding a polymeric material at a melt temperature of about 330 to about 370°C into mold having a mold temperature of about 90 to about 130°C and a clamp tonnage of about 12 to about 35 tons to form a disk, wherein the polymeric material comprises poly(2,6-dimethyl-1,4-phenylene oxide) and polystyrene. For the same reasons that Claim 1 is not obvious over Rosato, Claim 17 is not obvious over Rosato because Rosato fails to teach or suggest the particular combination of the melt temperature, the mold temperature and the clamp tonnage as claimed in Claim 17. Karasz also fails to teach or suggest the particular molding parameter combination. Karasz does not even disclose any melt temperature, mold temperature, and clamp tonnage.

The Examiner alleged that Karasz was not cited to show the particular molding parameter combination (Office Action dated 3/7/2006, page 16). However, as discussed above, Claim 1 is not obvious over Rosato. In order to render Claim 1 obvious, Karasz, in combination with Rosato, must provide suggestion or motivation for a skilled artisan to modify the references to arrive at the particular combination of the melt temperature, the mold temperature, and the clamp tonnage of the instant claim. Rosato or Karasz, either alone or in combination, does not provide the necessary suggestion or motivation as Karasz does not disclose melt temperature, mold temperature, and clamp tonnage, let alone the particular combination of these molding parameters of the instant Claim 1. Therefore, dependent Claim 17 is also not obvious over these same references.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejections regarding Claim 17.

Claim 22 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Rosato and Toshihiko, further in view of U.S. Patent No. 5,525,645 to Ohkawa, et al. (hereinafter the “Ohkawa”). Applicants respectfully traverse this rejection.

Ohkawa generally discloses a resin composition for optical molding which comprises (a) an actinic radical-curable and cationically polymerizable organic substance and (b) an actinic radiation-sensitive initiator for cationic polymerization. Ohkawa does not teach or suggest injection molding parameters.

Claim 22 depends from Claim 18, which is not obvious over Rosato in view Toshihiko as previously discussed. Rosato fails to teach or suggest the particular combination of steps required by independent Claim 18. Rosato generally discloses molding parameters. It does not provide the requisite teaching or suggestion to injection mold according to a molding model comprising certain parameters, testing the resulting disks, updating the molding model, and repeating until the molding parameters of the resulting molding model results in the fabrication of disk assemblies exhibiting a radial tilt change value after aging of less than or equal to about 0.35 degree measured at a radius of 55 millimeters.

Moreover, Toshihiko also fails to teach or suggest a multi-step method to ensure the production of disks having low radial tilt. For example, Toshihiko fails to teach or suggest creating an updated molding model based on molding parameter values. Toshihiko does not disclose molding parameters, such as melt temperature and mold temperature, at all.

Furthermore, Ohkawa does not even teach or suggest injection molding, let alone radial tilt of a disk. As each and every claim limitation of independent Claim 18 has not been taught or suggested by Rosato, Toshihiko or Ohkawa, either alone or combined, Claim 18 and its dependent Claim 22 have not been rendered obvious.

The Examiner alleged that Ohkawa was not cited to show injection molding or radial tilt of a disk (Office Action dated 3/7/2006, page 17). However, as discussed above, Claim 1 is not obvious over Rosato and Toshihiko. In order to render Claim 18 obvious, Ohkawa must provide the missing teachings of Rosato and Toshihiko, that is it must provide a

suggestion or motivation for a skilled artisan to modify the references to arrive at the particular multi-step method for molding a disk of the instant Claim 18. Rosato, Toshihiko, or Ohkawa, either alone or in combination, does not provide the necessary suggestion or motivation as Ohkawa does not disclose injection molding or radial tilt of a disk, let alone the particular multi-step method of the instant Claim 18. Therefore, dependent Claim 22 is also not obvious over these same references.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejections against Claim 22.

Claim 23 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Rosato, Toshihiko, and Ohkawa, further in view of Dhar. Applicants respectfully traverse this rejection.

Claim 23 ultimately depends from Claim 18. As presented above, Claim 18 is not obvious over Rosato, Toshihiko, and Ohkawa because these references fail to teach or suggest a multi-step method of molding disks. Dhar also fails to teach or suggest a multi-step method of molding disks. Therefore Claim 18 and its dependent Claim 23 are not obvious over Rosato, Toshihiko, and Ohkawa, further in view of Dhar. Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejections regarding Claim 23.

Claims 25-27 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Rosato and Toshihiko, further in view of Singh. Applicants respectfully traverse this rejection.

Claims 25-27 ultimately depend from Claim 18. As presented above, Claim 18 is not obvious over Rosato and Toshihiko because they fail to teach or suggest a multi-step method of molding disks. Singh also fails to teach or suggest a multi-step method of molding disks. Therefore, Claim 18 and its dependent Claims 25-27 are not obvious over Rosato and Toshihiko, further in view of Singh. Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejections regarding Claim 25-27.

Claim 28 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Rosato, Toshihiko, and Singh, further in view of Fortuyn. Applicants respectfully traverse this rejection.

Claim 28 ultimately depends from Claim 18. As presented above, Claim 18 is not obvious over Rosato, Toshihiko, and Singh because they fail to teach or suggest a multi-step method of molding disks. Fortuyn also fails to teach or suggest a multi-step method of molding disks. Therefore, Claim 18 and its dependent Claim 28 are not obvious over Rosato, Toshihiko, and Singh, further in view of Fortuyn. Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. § 103(a) rejections regarding Claim 28.

Claim 29 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Rosato, Toshihiko, and Singh, further in view of Allen. Applicants respectfully traverse this rejection.

Claim 29 ultimately depends from Claim 18. As presented above, Claim 18 is not obvious over Rosato, Toshihiko, and Singh because they fail to teach or suggest a multi-step method of molding disks. Allen also fails to teach or suggest a multi-step method of molding disks. Therefore Claim 18 and its dependent Claim 29 are not obvious over Rosato, Toshihiko, and Singh, further in view of Allen. Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. § 103(a) rejections regarding Claim 29.

Claim 30 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Rosato, Toshihiko, and Singh, further in view of Adedeji. Applicants respectfully traverse this rejection.

Claim 30 ultimately depends from Claim 18. As presented above, Claim 18 is not obvious over Rosato, Toshihiko, and Singh because they fail to teach or suggest a multi-step method of molding disks. Adedeji also fails to teach or suggest a multi-step method of molding disks. Therefore Claim 18 and its dependent Claim 30 are not obvious over Rosato,

Toshihiko, and Singh, further in view of Adedeji. Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejections regarding Claim 30.

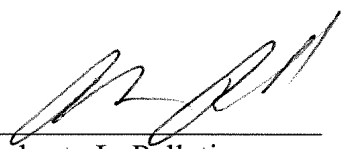
Reconsideration and withdrawal of this rejection are respectfully requested.

It is believed that the foregoing remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and withdrawal of the rejections and allowance of the case are respectfully requested.

If there are any additional charges with respect to this Response or otherwise, please charge them to Deposit Account No. 50-1131.

Respectfully submitted,

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